

Balandin, A. A. and Kotelkov, N. Z.
DEHYDROGENATION AND DECOMPOSITION OF
CYCLOHEXANE AT HIGH TEMPERATURES OVER
METALLIC CATALYSTS. [1961] 14p. 19 refs.
Order from OTS or SLA \$1.60

Trans. of Zhurnal Prikladnoi Khimii (USSR) 1942,
v. 15, p. 139-150.

DESCRIPTORS: *Cyclohexanes, Dehydrogenation,
Decomposition, Catalysts.

Catalytic dehydrogenation and decomposition of cyclohexane was investigated at 300-600° over electrically heated coils of nichrome, platinized nichrome, palladized nichrome, iron and chromium-plated iron, using a specially constructed apparatus distinguished by a number of advantages over the conventional catalytic equipment. Kinetic data for these reactions were obtained and a hypothesis of dendritic deposition of carbon based on the multiplet theory of catalysis, is suggested as an explanation of the data obtained. (Author)

61-16919

I. Balandin, A. A.
II. Kotelkov, N. Z.

Office of Technical Services
(Chemistry--Organic,
TT, v. 6, no. 7)

Kinetics of the Dehydration of Alcohols by Tungsten Oxide and the Energy of the Carbon, Hydrogen and Oxygen Bonds with the Catalyst, by A. A. Tolstopys
A. A. Ealandin, V. Stshizhevskiy, 8 pp.

RUSSIAN, per, Kinetika i Kataliz, Vol I, No 4,
1960, pp 558-565.

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The Activity of Cadmium Oxide as a Catalyst for Hydrocarbon Dehydrogenation, by A. A. Balandin, V. A. Ferapontov, A. A. Tolstopyatova, 7 pp.

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Determination of the Energy of the Bond
of the Reacting Atoms of Organic Mole-
cules with the Surface of MnO₂ Catalysyt,
by A.A. Tolstopyatova, A. A. Balandin,
V. Kh. Mayushenko, 4 pp

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim
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AEC-tr-4497(p.59-65) Unc1.

STUDY OF THE MECHANISM OF CONSECUTIVE REACTIONS
OF THE BUTANE-BUTYLENE-DIVINYL SYSTEM EMPLOYING
RADIOACTIVE CARBON C¹⁴. A. A. Balandin, O. K.
Bogdanova, G. V. Isagulyants, M. B. Neiman,
and E. I. Popov. Translated from Trudy
Vsesoyuz. Nauch.-Tekh. Konf. po Primenen.
Radioaktiv. i Stabil. Izotopov i Izluchenii v
Narod. Khoz. i Nauke, Moscow, 1957 (1958).
Izotopy i Izlucheniya v Khim., p.52-7.

C-4 P NSA

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Kinetic Determination of the Energies of the Bonds
Between the Reacting Atoms of Organic
Molecules and the Surface of Blue Molybdenum Oxide,
by A. A. Tolstopyatova, A. A. Balandin, et al., 5 pp.

RUSSIAN, ver, Iz Ak Nauk SSSR, Otdel Khim Nauk,
No 3, 1963, pp 423-428.

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Catalytic Dehydrogenation of Ethylbenzene to Styrene
on Cadmium Oxide in the Presence of Water Vapor,
by V. A. Poropontov, A. A. Balandin, et al., 8 pp.

RUSSIAN: per, Iz Ak Nauk SSSR, Otdel Khim Nauk,
No 3, 1963, pp 414-422.

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Selective Hydrogenation of Butynediol into
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Smukova, 8 pp.

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No 3, 1960, pp 447-454.

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catalytic decomposition of Dibutyl Sulphide
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Ye. A. Malakhova, 6 pp.

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1960, pp 2030-2040.

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AT&T RJ-2244

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Method for Preparation of 2-Isopropylanthraquinone,
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Kinetics of the Catalytic Reduction of Peroxides and Hydroperoxides, III. Hydrogenation of 3-Methyl-1-butyne-3-Hydroperoxide and p-Nitrobenzoyl Peroxide,
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8 pp.

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No 7, 1959, pp 1177-1185.

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Adsorption and Catalysis. III. Stepwise
Hydrogenation of Cyclopentadiene, by
A. A. Balandin, M. L. Khidekel' and V. V.
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No 7, 1959, pp 1169-1176.

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Effect of the Treatment of Chromic Oxide With
Hydrogen and Oxygen on Its Catalytic Activity
in Dehydrogenation and Dehydration Reactions,
by A. A. Tolstopyatova, A. A. Balandin, K. A.
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RUSSIAN, par, Iz Ak Nauk SSSR, Otdel Khim Nauk,
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Adsorption and Catalysis. Communication 2.
Reaction Rate, Surface Potential, and Adsorption
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The Structure of Molecules and Reactivity in Catalysis
by A. A. Balandin, 10 pp.

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Effect of the Nature of Metals on Their
Catalytic Activity, by A. A. Balandin,
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No 3, 1960, pp 577-580. 9077078

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Structural and Energetic Factors* by
A. A. Bulandin, 14 pp.

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1959, pp 655-661. 9077080

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"Radioactive Catalysts" Dehydration of Cyclohexanol on Magnesium and Sodium Sulfates, by A. A. Balandin, V. I. Spitsyn, N. P. Dobroslskaya, I. E. Mikhaleenko, 8 pp.

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Selective Hydrogenation of Adiponitrile Over a Cobalt Boride Catalyst, by B. D. Polkovnikov, L. Kh. Freidlin, I. A. Ralandin, 3 pp.

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Catalytic Properties of Rhodium. Communication 2.
Dehydrogenation of Cyclohexane, by A. A. Balandin,
E. I. Kurpeiskaya, A. A. Tolstopyatova, 6 pp.

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1959, pp 1529-1535.

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<p>Balandin, A. F., Bogdanova, O. K. and others. CATALYTIC DEHYDROGENATION OF THE TECHNI- CAL BUTANE-BUTENE FRACTION OF CRACKED GAS. [1961] 4p. 3 refs. Order from OTS or SLA \$1.10</p> <p>61-20144</p> <p>Trans. of Zhurnal Prikladnoi Khimii (USSR) 1945, v. 18, p. 609-611.</p> <p>DESCRIPTORS: *Butanes, *Butenes, Dehydrogenation, Catalysis, Catalysts, *Butadienes, Synthesis, *Hydro- carbons, Gases.</p> <p>On the example of catalytic dehydrogenation of a plant- produced butane-butene fraction of cracking gases it was shown that the method of preparation of butadiene (by dehydrogenation of pure butane and 1-butene) previously described by the authors is totally appli- cable to gases from oil cracking. (Author) (Chemistry--Organic, TT, v. 6, no. 11)</p>	<p>61-20144</p> <p>I. Balandin, A. A. II. Bogdanova, O. K.</p> <p>Office of Technical Services</p>
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Balandin, A. A., Bogdanova, O. K., and
Shcheglova, A. P.

THE KINETICS OF DEHYDROGENATION OF
BUTYLENE ON A CHROMIUM CATALYST. [1961]

21p.

Order from ATS \$29.95

ATS-00N54R

Trans. of Akad[emiya] Nauk SSSR. Ordel[enie]
Khim[icheskikh] Nauk. Izvestiya 1946, no. 5,
p. 497-513.

DESCRIPTORS: *Butenes, *Dehydrogenation, *Chrom-
ium catalysts, Catalysts.

(Chemistry--Organic, TT, v. 6, no. 11)

61-25549

- I. Balandin, A. A.
- II. Bogdanova, O. K.
- III. Shcheglova, A. P.
- IV. ATS-00N54R
- V. Associated Technical Services, Inc., East Orange, N. J.

Office of Technical Services

Balandin, A. A. and Marukyan, G. M.
CATALYTIC PREPARATION OF α -METHYL-
STYRENE. [1961] 10p. 12 refs.
Order from OTS or SLA \$1.10

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Trans. of Zhurnal Prikladnoi Khimii (USSR) 1946,
v. 19, p. 207-216.

DESCRIPTORS: *Styrenes, Methyl radicals,
Synthesis, *Cumends, Dehydrogenation, Copper,
Chromium, Catalysts, Catalysis.

A study of catalytic dehydrogenation of isopropylbenzene to α -methylstyrene showed that this method may be recommended for testing on a commercial scale. α -Methylstyrene is distinguished by a number of advantages over styrene. Its preparation is simpler and the quality of synthetic rubber obtainable by its copolymerization with 1, 3-butadiene is apparently higher than that of copolymers of the latter with styrene. De-
(Chemistry - Organic, TT, v. 6, no. 11) (over)

61-20159

I. Balandin, A. A.
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Office of Technical Services

Effect of the Structure of an Alcohol Molecule on the
Kinetics of Its Dehydrogenation. Communication 4.
Catalytic Dehydrogenation of Benzyl Alcohol, by O. K.
Eogdanova, A. A. Balandin, A. P. Sheveglova, 6 pp.

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Catalytic Properties of Rhenium. Communication 1.
Rhenium as a Dehydrogenation Catalyst, by A. A. Balandin
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Mechanism of Carbon Formation in the Decomposition of
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Kinetics of the Vapor Phase Transformation of
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L. I. Sovalova, T. A. Slovokhotova, 7 pp.

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6 pp.

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Catalytic Dehydrogenation of 2-Ethylthiophene,
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RUSSIAN, per, Zhur Obshch, Vol XXI, No 1, 1960,
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The Mechanism of Carbon Formation During Dehydration
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A. A. Balandin, I. P. Rybachko, G. Itogova, A. L.

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Effect of Surface Reduction of Chromium Oxide on Its
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Preparation of Butadiene by Catalytic Dehydrogenation
of Butane-Butylene Mixtures in the Presence of
Water Vapor, by O. K. Bogdanova, A. A. Balandin,
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Kinetic Determination of the Energies of the
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From the Standpoint of the Multiplet Theory of
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L. Kh. Freidlin, 4 pp.

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The Orientation of Molecules and the Relation of
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A Study of Iron-Chromium Catalysts in Dehydrogenation and Dehydration Reactions of Isopropyl Alcohol, by A. A. Balandin, et al. 41754

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Sel - Chem

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Balandin, A. A., Kukina, A. I., and Malakhova,
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CATALYTIC DECOMPOSITION OF DI-n-BUTYL SULFIDE ON d-Fe. [1960] 12p.
Order from ATS \$16.60

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Trans. of [Zhur[nal] Fiz[icheskoy] Khim[ii] (USSR)
1960, v. 34, no. 9, p. 2030-2040.

61-12673

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- II. Balandin, A. A.
- III. Kukina, A. I.
- IV. Malakhova, Ye. A.
- V. ATS-95N47R
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Balandin, A. A., Rozhdestvenskaya, I. D., and
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EFFECT OF VARIOUS GAS TREATMENTS ON THE
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Trans. of Akad[emiya] Nauk SSSR. Doklady. 1960,
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61-22001

1. Chromium oxides--
Catalytic properties
2. Chromium oxides--
Magnetic properties
- I. Balandin, A. A.
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Selective Hydrogenation of the Acetylenic Bond in
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Catalyst, by L. Kh. Fridlin, A. A. Balandin,
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Effect of the Molecular Structure of an
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Communication 3. Comparison of Results for
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Bogdanova, A. P. Shcheglova, 6 pp.

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ATS RJ-1903

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Properties of a Nickel Catalyst Prepared by the
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